

What is claimed is:

1. A fluid warming and infusion system for infusing a warm fluid into a patient, comprising:

a device that transfers heat to the fluid, thereby warming the fluid; and

an insulated tube that transports the warmed fluid to the patient, wherein the insulated tube includes a substantially thermally insulating component that prevents the warmed fluid from losing a substantial amount of heat as the fluid flows through the tube.

2. The fluid warming and infusion system of claim 1, wherein the insulated tube has a configuration selected from the group consisting of:

A) an outer wall, an inner wall wherein an annular insulating gap is positioned between the outer wall and the inner wall, and a fluid lumen formed by the inner wall for transporting the warmed fluid.

B) an outer wall, an inner wall that forms a fluid lumen for transporting the warmed fluid, and at least two partitions connected between the inner and outer walls for forming at least two insulating gaps between the inner and outer walls; and

C) a single wall configuration wherein a plurality of insulating cavities exist within the wall.

3. The fluid warming and infusion system of claim 2, wherein each insulating gap or each of said cavities is evacuated and sealed so that a vacuum is created in the insulating gap(s) or cavities.

4. The fluid warming and infusion system of claim 2, wherein each insulating gap or each of said cavities is filled with an insulating material.

5. The fluid warming and infusion system of claim 4, wherein the insulating material is comprised primarily of air.

6. The fluid warming and infusion system of claim 4, wherein the insulating material comprises insulating foam.

7. The fluid warming and infusion system of claim 2, wherein there are only two partitions and the partitions are spaced about 180 degrees apart from each other.

9. The fluid warming and infusion system of claim 1, wherein said device is a heat exchanger cassette.

10. The fluid warming and infusion system of claim 1, wherein said device is a fluid warmer.

11. The fluid warming and infusion system of claim 1, further comprising a luer connector attached to a distal end of said insulated tube.

12. A method for infusing a warmed fluid into a patient utilizing the fluid warming and infusion system of claim 1, comprising a step of providing a patient line comprising a tube for delivering the warmed fluid to the patient, wherein the tube includes a substantially thermally insulating component that prevents the warmed fluid from losing a substantial amount of heat as the fluid flows through the tube.

13. The method of claim 12, wherein the insulated tube has a configuration selected from the group consisting of:

A) an outer wall, an inner wall wherein an annular insulating gap is positioned between the outer wall and the inner wall, and a fluid lumen formed by the inner wall for transporting the warmed fluid;

B) an outer wall, an inner wall that forms a fluid lumen for transporting the warmed fluid; and at least two partitions connected between the inner and outer walls for forming at least two insulating gaps between the inner and outer walls; and

C) a single wall configuration wherein a plurality of insulating cavities exist within the wall.

14. The method of claim 13, wherein each insulating gap or each of said cavities is evacuated and sealed so that a vacuum is created in the insulating gap(s) or cavities.

15. The method of claim 13, wherein each insulating gap or each of said cavities is filled with an insulating material.

16. The method of claim 15, wherein the insulating material is comprised primarily of air.

17. The method of claim 15, wherein the insulating material comprises insulating foam.

18. The method of claim 13, wherein there are only two partitions and the partitions are spaced about 180 degrees apart from each other.

19. A fluid administration set for use with the fluid warming and infusion system of claim 1, comprising:

a heat exchanger cassette having an input port and an output port;

a fluid line having a first end and a second end, the first end being configured to attach to an output port of a fluid container and the second end being in fluid communication with the input port of the cassette; and

a patient line having a first end and a second end, the first end being in fluid communication with the output port of the cassette, wherein

the patient line comprises a tube having a substantially thermally insulating component that prevents a warmed fluid from losing a substantial amount of heat as the fluid flows through the tube.

20. The fluid administration set of claim 19, wherein the insulated tube has a configuration selected from the group consisting of:

A) an outer wall, an inner wall wherein an annular insulating gap is positioned between the outer wall and the inner wall, and a fluid lumen formed by the inner wall for transporting the warmed fluid;

B) an outer wall, an inner wall that forms a fluid lumen for transporting the warmed fluid, and at least two partitions connected between the inner and outer walls for forming at least two insulating gaps between the inner and outer walls; and

C) a single wall configuration wherein a plurality of insulating cavities exist within the wall.

21. The fluid administration set of claim 20, wherein each insulating gap or each of said cavities is evacuated

and sealed so that a vacuum is created in the insulating gap(s) or cavities.

22. The fluid administration set of claim 20, wherein each insulating gap or each of said cavities is filled with an insulating material.

23. The fluid administration set of claim 22, wherein the insulating material is comprised primarily of air.

24. The fluid administration set of claim 22, wherein the insulating material comprises insulating foam.

25. The fluid administration set of claim 20, wherein there are only two partitions and the partitions are spaced about 180 degrees apart from each other.